GSM/GPRS/GPS MINI TRACKER
USER MANUAL

Preface

Thank you for purchasing the Mini Gps Tracker. This manual shows how to operate the device smoothly and correctly. Make sure to read this manual carefully before using this product. Please note that specification and information are subject to changes without prior notice in this manual. Any change will be integrated in the latest release. The manufacturer assumes no responsibility for any errors or omissions in this document

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1 Summary

Working based on existing GSM/GPRS network and GPS satellites, this product can locate and monitor any remote targets by SMS or GPRS.

2 Applications

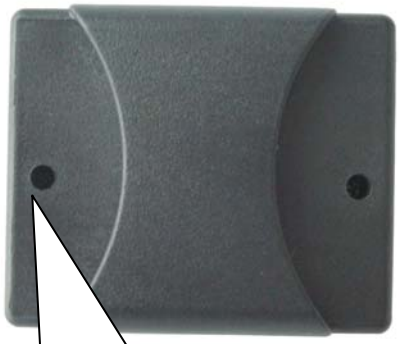
- Protect the child / the old / the disabled / pet etc
- Personnel management
- Covert Tracking

3 Hardware Description

Accessories including Color box,Belt,Built-in battery,Wall charger,Indoor charger and Instruction CD.

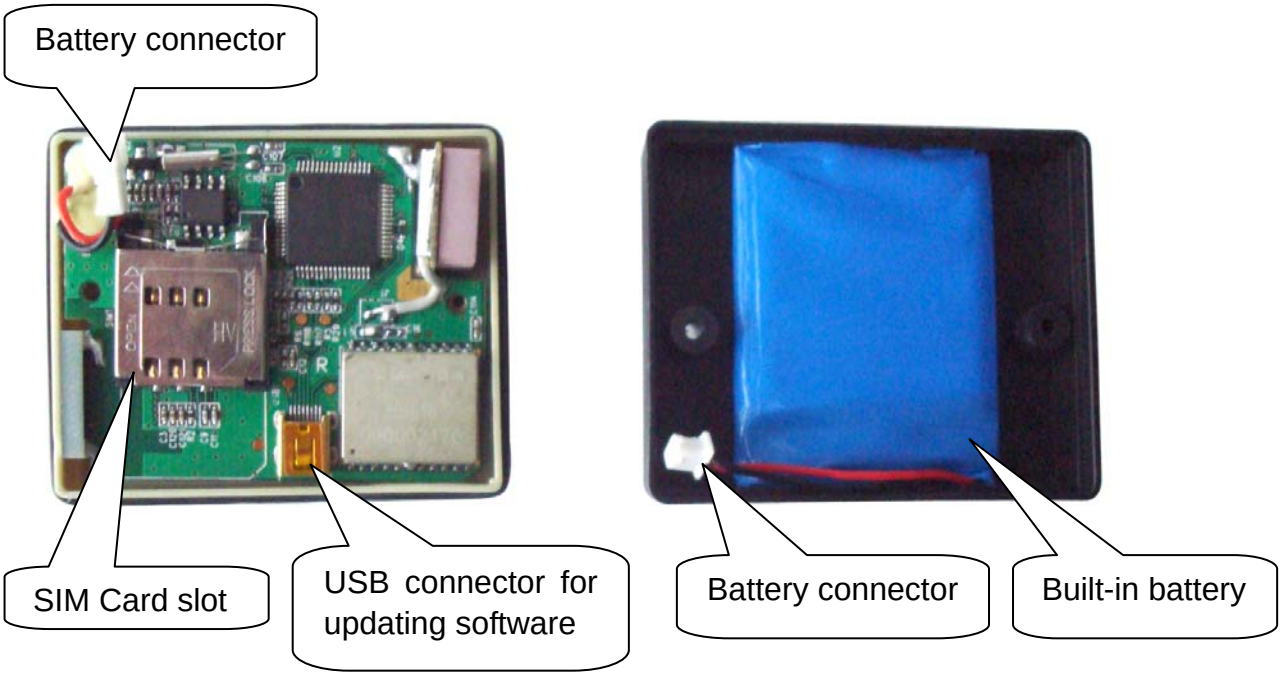
3.1 Front Face

3.2 Rear Face



3.3 Side Face

3.4 Interior



4 Specs.

Content	Specs.
Dimension.	46(L)x39(W)x13(H) mm
Weight	35g
Network	GSM/GPRS
Band	850/1800/1900Mhz or 900/1800/1900Mhz
GPS chip	SIRF3 chip
GSM/GPRS module	Enfora module
GPS sensitivity	-159dBm
GPS accuracy	5m
Time To First Fix	Cold status 45s Warm status 35s Hot status 1s
Wall charger	110－220V input 5V output
Battery	Chargeable changeable 3.7V 450mAh Li-ion battery
Standby	48hours
Storage Temp.	-40°C to +85°C
Operation Temp.	-20°C to +55°C
Humidity	5%--95% non-condensing

5 Usage

5.1 SIM card installation

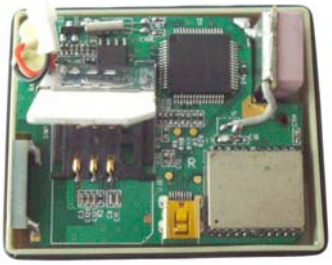
Make sure that there is **no call transfer** and **call display is on**, and **PIN code off**. The SMS message must in Text format, can't be identified for PDU format.

Steps:

5.1.1 Open the back cover by loosen the screws

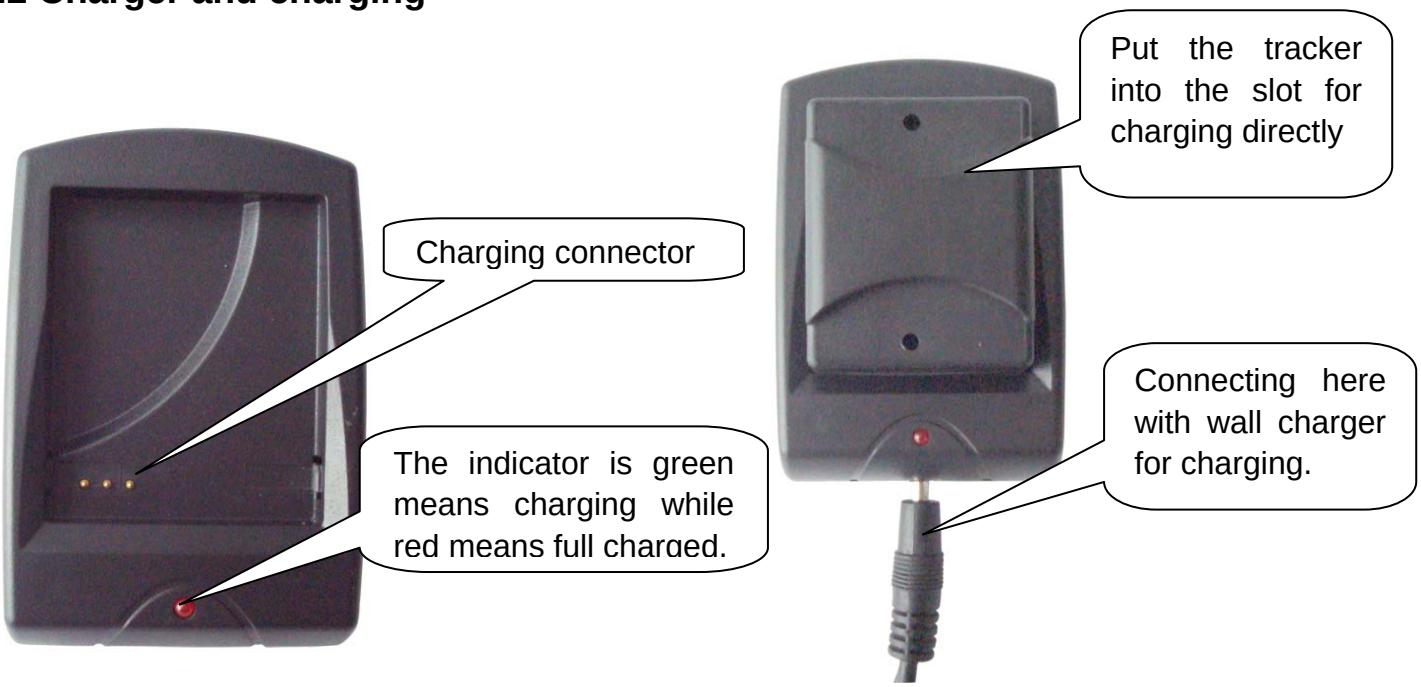
5.1.2 Push the foil back and pull it up.

5.1.3 Insert the SIM card into the holder and press the foil down.



5.1.4 Connecting the battery as below, and close the back cover by tighten the screws.

5.2 Charger and charging


Put the tracker into the slot for charging directly
Charging connector
Connecting here with wall charger for charging.
The indicator is green means charging while red means full charged.

Do charge the battery to capacity in 8 -12 hours for the first use. Please use the battery and charger provided by the manufacturer. This unit adopts built-in Li-ion battery, and full battery will support around 48 hours use on end. After first use, the battery can be charged fully in 3-5hours.

Cautions:

a: For it's Li-ion battery, which contains harmful chemicals and may burst, please don't bump, puncture it violently and keep it off fire.

b: Please charge the battery in time to keep it working normally.

5.3 Startup

- Put the SIM card in place and tighten the screws..
- The unit turns on automatically when connecting the tracker with battery,at this time the indicator keep flashing quickly.
- In 30s to 60 seconds the indicator stop flashing when the unit receives GSM signal as well as GPS signal.
- For the first use, please initialize the unit and restore it to default setting.(please refer to **5.4** for instruction.)
- When this unit receives GPS signals normally, you can use it and do all the following settings.

5.4 Initialization

Send SMS “begin+password” to the unit, it will reply “begin ok” and initialize all the settings. (default password: 123456)

5.5 Change the Password

Send SMS password+old password+space+new password to change the password.

Remark:

5.5.1 Be sure keep the new password in mind, you have to consult your local agent to restore the original setting in case of losing the new password.

5.5.2 Make sure the new password is in 6 digits, or else the tracker can not recognize the password.

5.6 Authorization

There are only 5 numbers able to be authorized.

5.6.1 Setup:Send SMS admin+password+space+cell phone number to be as a authorized number. The other authorized numbers should be set up by the first authorized number. If the number is successfully authorized, the unit will reply SMS. “admin ok!”.

5.6.2 Cancel:Send SMS noadmin+password+space+authorized number to be delete by the first authorized number to delete the authorized number.

5.6.3 For roaming purpose, you have to add your country code ahead of the cell phone number, for example, please send admin123456 008613322221111 to tracker to set 13322221111 as an authorized number.

5.7 Real-time Polling

5.7.1 If there is no authorized number, when any number dials up the unit, it will report a Geo-info; If there is already an authorized number, then it will not respond when an unauthorized number calls it up.

5.7.2 When an authorized number dials up the unit, it will hang up and report a real-time Geo-info as below:

lat: 22.566923 long: 114.051331 speed: 0.00 28/10/09 03:33 F:4.32V,0, Signal:F imei:359587011016261 05 41.

5.8 Auto-Track

5.8.1 To get a Geo-info at 30s intervals to the authorized numbers for 5 times.

Setup:Send SMS t030s005n+password to the unit, it will report a Geo-info every

30s,total 5 times.(s: second, m: minute, h: hour). The setting must be in 3 digits and at maximum 255 in value.

5.8.2 To get a Geo-info at 30s intervals to the authorized numbers for heaps of times.

Setup:Send SMS t030s***n+password to the unit, it will report a Geo-info every 30s,total heaps of times.

5.8.3 Cancel: Send notn+password to delete the " auto track "It will reply "notn ok!".

Remark: the interval must not be less than 5s.

5.9 Geo-fence

This function is using for the owner to set up a geo-fence of the unit to restrict its movements within a district. The unit will send the message to the authorized numbers when it moves out of the district.The alert format as below:

lat: 22.566923 long: 114.051331 speed: 0.00 28/10/09 03:33 F:4.32V,0, Signal:F stockade imei:359587011016261 05 41.9

5.9.1 Setup: When the unit stays immobile in a place for 3-10 minutes, the user can send SMS stockade+password+space+latitude,longitude; latitude,longitude to unit to set the restricted district. In case of breach, it will send a SMS "stockade!+geo-info" to the authorized numbers every 3 minutes.

Remark: The first latitude&longitude is coordinate of the top left corner of the Geo-fence, while the second latitude&longitude is the coordinate of the bottom right corner.

5.9.2 Cancel: Send SMS nostockade+password to deactivate this function.It will reply "nonostockade ok!".

5.10 Movement Alert

This function is using for the owner to get alarm when the unit moves out of a restricted district.(500m radius).

5.10.1 Setup: When the unit stays immobile in a place for 3-10 minutes, the user can send SMS move+password to the unit, it will reply “move ok!”. In case of such a movement, it will send a SMS “Move” along with a Geo-info to the authorized numbers every 3 minutes, The alert format as below:

lat: 22.566923 long: 114.051331 speed: 0.00 28/10/09 03:33 F:4.32V,0, Signal:F move imei:359587011016261 05 41.9

5.10.2 Cancel: Send SMS nomove+password to deactivate the movement alert. It will reply “nomove ok!”.

5.11 Overspeed Alert

This function is using for the owner to control the target’s speed.

5.11.1 Setup: Send SMS speed+password+space+080 to the unit (suppose the speed is 80km/h), and it will reply “speed ok!”. When the target moves exceeding 80 km/h, the unit will send a SMS speed+080!+Geo-info to the authorized numbers. It will send such a SMS again when the speed is low 80 km/h then exceed it within 3 minutes.The alert format as below:

lat: 22.566923 long: 114.051331 speed:85.60 28/10/09 03:33 F:4.32V,0, Signal:F speed imei:359587011016261 05 41.9

5.11.2 Cancel: Send SMS nospeed+password to deactivate the overspeed alert.It will reply “nospeed ok!”.

Remark: It is recommended that the speed alarm is set at not less than 80km/h. For

below that rate, it may cause the excursion of the GPS signal influenced by clounds etc.

5.12 Low battery Alert

It begins to send SMS to the user every 30 minutes when the battery voltage is or less than 3.7V.

The alert SMS format as below:

lat: 22.566923 long: 114.051331 speed:0.00 28/10/09 03:33 L:3.68V,0, Signal:F imei:359587011016261 05 41.9

5.13 IMEI Checking:

Send SMS imei+password to the unit to check the IMEI number of the tracker.

5.14 SMS Center

5.14.1 Setup:Send SMS adminsms+password+space+cell phone number to set the SMS center.It will reply”adminsms ok if the setting is successful.

If the SMS center is set up, When an authorized number sends SMS to the tracker, the tracker will reply a SMS with Geo-info & authorized number to SMS center.The SMS format as below:

13100000000 lat: 22.566923 long: 114.051331 speed:0.00 28/10/09 03:33 F:3.88V,0, Signal:F imei:359587011016261 05 41.9

5.14.2 Cancel:Send SMS noadminsms+password to cancel the SMS center.It will reply SMS noadminsms ok!

5.15 GPRS Setting

In order to use GPRS function, the user needs to set IP, Port and APN (access point name) by cell phone.

（**NOTE:** Some countries or regions should set APN's User Name and APN's Password,please consult your local service operator for information.）

5.15.1 Set an IP address and port:

Setup: Send SMS adminip+123456+space+IP address+space+port.

If setup successful, the tracker will reply SMS "adminip ok"

Cancel: Send SMS noadminip+123456

5.15.2 Set APN

Setup: Send SMS apn+123456+space+specify apn content.

If setup successful, the tracker will reply SMS "APN ok".

Cancel: The old APN will be invalid automatically when a new APN is set.

5.15.3 Set APN's User Name

Setup: Send SMS apnuser+123456+space+the sim card's user name.

If setup successful, the tracker will reply SMS "apnuser ok".

Cancel: The old APN user name will be invalid automatically when a new APN uer name is set.

5.15.4 Set APN's Password

Setup: Send SMS apnpasswd+123456+space+the sim card's password.

If setup successful, the tracker will reply SMS "apnpasswrod ok".

Cancel: The old APN password will be invalid automatically when a new APN password is set.

5.15.5 GPRS transport protocols

As soon as the IP & Port & APN are set up, the user can make a call or send SMS to tracker. The tracker will hang up and report the coordinates to IP address.

The message format sent by tracker to IP address is as following:

Serial number + authorized number + GPRMC + GPS signal indicator + alert command + IMEI number +Battery voltage+ Number of satellites + CRC16 checksum.

For example, it will send GPS coordinates as below illustrated

091029025041,13145826175,GPRMC,025041.000,A,2234.0528,N,11403.0760,E,0.00,0.00,291009,,,A*61,F,, imei:354776033427755,07,57.7,F:4.18V,0,136,720A

Notes:

◆Our gprs supports TCP or UDP protocol, so please confirm whether your GPRS webserver supports TCP or UDP protocol before having the order.

◆ Please use the SIM card which is with GPRS function.

◆ Pls use the following SMS to set up GMT time in the SMS for the tracker

time zone+password+space+ the customer's GMT TIME

◆ Pls use the following SMS to set up YOUR website in the SMS for the tracker

home+password+space+ the customer's WEBSITE

home+password+space+space (if there is no website in the SMS)

6 Cautions

Please comply with the instructions to extend the unit life:

1. Keep the unit dry. Any liquid, i.e. rain, moisture, may destroy or damage the inside circuitry.

2. Don’t use & store the unit in dusty places.

3. Don’t put the unit in overheated or overcooled places.

4. Handle carefully. Don’t vibrate or shake it violently.

5. Clear the unit with a piece of dry cloth. Don’t clean in chemicals, detergent.

6. Don’t paint the unit, this may cause some foreign materials left in between the parts.

7. Don’t disassemble or refit the unit.

8. Please use the battery and charger provided by manufacturer. Using other batteries and chargers will cause unwanted situation.

9. Don’t dismount the antenna randomly, or use other antennas. This may interfere the transmission, and increase the radiation as well.

7 Faults & Solutions

Faults	Solution
No info display	Check the battery and see if it is fully charged or correctly installed.
No SMS reply	In existence of an authorized number, an unauthorized number dials up the unit . Please initialize the unit and re-set up the authorized numbers.
Hangup Fail	Take out the battery and then insert it to restart up in 5 minutes later.
Location report in digits of zeros.	Don’t use it in the place beyond reach of signals. Place the unit outdoors, especially when starting it up.